STATE OF NEW MEXICO
BEFORE THE ENVIRONMENTAL IMPROVEMENT BOARD

IN THE MATTER OF PROPOSED NEW REGULATIONS
20.2.300 NMAC REPORTING OF GREENHOUSE GAS EMISSIONS
20.2.301 NMAC GREENHOUSE GAS EMISSIONS – VERIFICATION REQUIREMENTS

AND PROPOSED REPEAL OF REGULATION
20.2.87 NMAC GREENHOUSE GAS EMISSIONS REPORTING

No. EIB 10-09(R)

New Mexico Environment Department,
Petitioner

NEW MEXICO OIL AND GAS ASSOCIATION'S
NOTICE OF INTENT TO PRESENT TECHNICAL TESTIMONY

The New Mexico Oil and Gas Association ("NMOGA"), pursuant to 20.1.1.302 NMAC and the hearing notice for this hearing, submits this Notice of Intent to Present Technical Testimony in the above-captioned matter.

1. **Identify the Person for Whom the Witness Will Testify**

New Mexico Oil and Gas Association
Post Office Box 1864
Santa Fe, NM 87504-1864

2. **Identify Each Technical Witness the Person Intends to Present and State the Qualifications of the Witness, Including a Description of Their Educational and Work Background**.

NMOGA expects to offer the following witness at the hearing:

Douglas B. Price, P.E.
Navajo Refining Company
Post Office Box 159
Artesia, NM 88211-0159
doug.price@hollycorp.com

Mr. Price is employed by Navajo Refining Company as Environmental Manager for Air Quality for the Artesia and Lovington Refineries. He has been employed by Navajo since May

9, 2005. From 1984 until 2005, he was employed by Waid and Associates (WAID), an engineering and environmental consulting firm.

Mr. Price received a Bachelor of Science in Chemical Engineering in December 1982 and a Bachelor of Business Administration in Finance in May 1985, both from the University of Texas at Austin. He became a registered Professional Engineer in Texas (P.E. No. 73350) in 1992.

3. **Summarize or Include a Copy of the Direct Testimony of Each Technical Witness and State the Anticipated Duration of the Testimony.**

A copy Mr. Price's direct testimony is attached to this Notice. NMOGA anticipates that Mr. Price's direct testimony will take approximately 45 minutes.

4. **List and Describe, or Attach the Exhibits Anticipated to Be Offered at the Hearing**.

NMOGA does not anticipate offering any exhibits at the hearing except those attached to the witness's direct testimony, and hearing or rebuttal exhibits as necessary.

5. **Attach the Text of Any Recommended Modifications to the Proposed New or Revised Regulations.**

NMOGA is not recommending any modifications to the proposed rules at this time.

Respectfully submitted,

MONTGOMERY & ANDREWS, P.A.

By: _____

Louis W. Rose
Jeffrey J. Wechsler
Lara Katz
Post Office Box 2307
Santa Fe, New Mexico 87504
(505) 982-3873

Attorneys for the New Mexico Oil and Gas Association

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New Mexico Environmental Department,
Petitioner

DIRECT TESTIMONY

OF

DOUGLAS B. PRICE, P.E.

Montgomery & Andrews, P.A.
Louis W. Rose
Jeffrey J. Wechsler
Lara Katz
Post Office Box 2307
Santa Fe, New Mexico 87504-2307

Attorneys for the New Mexico Oil and Gas Association

Testimony of Douglas B. Price, P.E.

My name is Douglas B. Price. I have been employed by Navajo Refining Company, L.L.C. (Navajo) as Environmental Manager for Air Quality for the Artesia and Lovington Refineries since May 9, 2005. Previously, I was employed by Waid Environmental (Waid), an engineering and environmental consulting firm, from 1984 until joining Navajo. My work at Waid and Navajo is in the field of environmental compliance where my goal is to apply sound science to environmental decision-making and solving environmental problems. My experience is primarily in the air quality sector of environmental compliance.

I currently reside in Artesia and I have resided in New Mexico since May 2005. Previously, I resided in Texas. I received my Bachelor of Science in Chemical Engineering in December 1982 and my Bachelor of Business Administration in Finance in May 1985, both from the University of Texas at Austin. I became a registered Professional Engineer in Texas (P.E. No. 73350) in 1992 and have retained my registration since that time.

I have a broad background in air quality compliance, primarily from my years with Waid, having worked with a range of industrial clients in several states. At Navajo, my work is in air quality compliance related to:

- the state and federal air quality regulations applicable to petroleum refineries, and
- air quality construction and operating permits for both the Artesia and Lovington Refineries.

I am currently the Chair of the New Mexico Oil and Gas Association's (NMOGA) Environmental Affairs Refining Committee.

I am testifying on behalf of NMOGA regarding two proposed regulations 20.2.300 NMAC titled REPORTING OF GREENHOUSE GAS EMISSIONS, and

20.2.301 NMAC titled GREENHOUSE GAS EMISSIONS – VERIFICATION REQUIREMENTS, as proposed by the petitioner, the New Mexico Environment Department (Department). The proposed regulations address certain greenhouse gas (GHG) sources and requiring GHG emissions reporting and third-party verification of reported GHG emissions within the state of New Mexico. In particular, I am testifying on how this proposed regulation will affect the petroleum refining sector within New Mexico.

My testimony is organized into the following sections:

My testimony refers to the red-lined version of the proposed rules submitted by the Department on August 31, 2010 as part of their direct testimony. Although 45 calendar days were available to review the Department's testimony, because of the 20.2.350 NMAC proposed rule hearing (EIB No. 10-01(R), limited time was available to review the two proposed rules. This was an insufficient amount of time to thoroughly evaluate the Department's proposal and testimony. Nevertheless, I made a good faith effort to review the Department's filings and

prepare this testimony according to the schedule established by the Environmental Improvement Board.

Section 1 - Description of New Mexico's petroleum refining industry

There are currently two companies with petroleum refining operations in New Mexico, Western Refining and Holly Corporation. There are three active petroleum refinery locations within New Mexico: Gallup, Artesia, and Lovington.

Western Refining is an independent oil refiner and marketer headquartered in El Paso, Texas. The company operates primarily in the Southwestern and Mid-Atlantic regions of the United States. Western Refining (WNR) has been publicly traded on the New York Stock Exchange since January 2006.

Western Refining owns and operates refineries in western Texas, northwestern New Mexico, and on the east coast of Virginia. Western Refining's refinery in New Mexico is located near Gallup, New Mexico and is the smallest of their three operating refineries. In 2009, Western Refining indefinitely suspended refining operations at their Bloomfield, New Mexico refinery but continues to operate the facility as a products terminal.

The Gallup Refinery is the only active refinery in the Four Corners area. The crude oil processing capacity of the Gallup Refinery is approximately 23,000 barrels per day (bpd).

The Four Corners area is one source of crude oil for the Gallup refinery. A locally produced, high-quality crude oil, known as Four Corners Sweet, is the primary feedstock, although the supply is supplemented with other feedstocks from outside the area.

The Gallup Refinery primarily distributes refined products in the Four Corners region. The Gallup Refinery's secondary markets include metropolitan Albuquerque (the largest market in New Mexico) and the northern Arizona region.

Holly Corporation (Holly) is an independent petroleum refiner and marketer headquartered in Dallas, Texas. The company operates primarily in the Southwestern, Western, and Mid-continent regions of the United States. Holly Corporation (HOC) has been publicly traded on the New York Stock Exchange since April 2004.

Holly owns and operates, through its subsidiaries, refineries located in New Mexico, Oklahoma, and Utah. A wholly-owned subsidiary, Navajo Refining Company, L.L.C., owns and operates the Navajo Refinery in New Mexico.

Holly's refinery in Artesia, New Mexico is operated in conjunction with Holly's refinery in Lovington, New Mexico. The two locations are collectively called the Navajo Refinery. The Lovington Refinery consists primarily of a crude oil distillation unit and a vacuum distillation unit. The intermediate products from the Lovington distillation processes are shipped to the Artesia Refinery for final processing.

The Navajo Refinery has a crude oil processing capacity of 100,000 BPSD. It can process heavy crude oil, sour crude oil, and light sweet crude oil. The Navajo Refinery serves markets in the southwestern United States and northern Mexico.

The attached "Exhibit 1 - Refinery Employee and Tax Summary" contains a table summarizing the number of employees and the taxes paid by the petroleum refineries within New Mexico for the calendar year 2009. The petroleum refining industry directly provides almost 600 jobs. This does not include the jobs created at contract companies that provide some

on-site labor services or the jobs created through purchasing material and services from other New Mexico businesses.

Section 2 – GHG emitting sources at petroleum refineries

The Gallup Refinery has crude oil distillation, hydrotreating for naphtha and distillate, reforming for high-octane gasoline production, and fluid catalytic cracking units. In addition, the refinery has an Isomerization unit to increase the octane of other gasoline streams that enhance high-octane gasoline production. The Gallup Refinery also has an alkylation unit to convert produced liquefied petroleum gases (LPGs) back into gasoline.

GHG sources at the refinery include:

- gas-fired combustion sources (heaters, boilers, and internal combustion engines)
- flares
- glycol dehydrator still vents
- process piping fugitives
- crude oil storage tanks
- wastewater treatment equipment (oil-water separator and aeration lagoons)
- indirect emissions associated with purchased electricity

The Lovington Refinery has crude oil distillation and vacuum distillation units. GHG sources at the refinery include:

- gas-fired combustion sources (heaters and boilers)
- a flare
- process piping fugitives

- crude oil storage tanks
- wastewater treatment equipment (oil-water separator)
- indirect emissions associated with purchased electricity

The Artesia Refinery has crude oil distillation, vacuum distillation, solvent deasphalting, hydrotreating units (gas-oil, kerosene, diesel, and naphtha), fluid catalytic cracking, alkylation, reforming, isomerization, hydrocracking, hydrogen production, and sulfur recovery units. GHG sources at the refinery include:

- gas-fired combustion sources (heaters, boilers, and SRU tail gas incinerators)
- flares
- process piping fugitives
- crude oil storage tanks
- wastewater treatment equipment (oil-water separator)
- indirect emissions associated with purchased electricity

None of the refineries in New Mexico use coal-fired or oil-fired combustion sources. All of the refineries have some internal combustion engines for emergency fire water pumping and emergency electrical power generation.

The attached "Exhibit 2 – 2009 Refinery GHG Emissions" contains a table summarizing the calendar year 2009 carbon dioxide (CO_2) emissions and methane (CH_4) emissions for each refinery. This 2009 data is from the GHG emissions data reported to the Department as required by the existing 20.2.87 NMAC rule titled GREENHOUSE GAS EMISSIONS REPORTING. The methane emissions are also shown as CO_2 equivalent (CO_2e) emissions using a multiplier of 21 metric tons of CO_2e per metric ton of CH_4. Finally, the total CO_2e emissions for each refinery

are shown. The total CO_2e emissions are the sum of the direct CO_2 emissions plus the CO_2e of the CH_4 emissions.

Section 3 – Comments on Proposed 20.2.300.1 through 20.2.300.101 NMAC

20.2.300.13 NMAC - Emissions Reports to the Environmental Protection Agency

The Department's proposed rules should automatically accept the reports required by the United States Environmental Protection Agency (EPA) in 40 CFR 98. The August 31, 2010 proposed section 20.2.300.13 NMAC currently states "On approval by the secretary, reports that conform to this part and that are submitted to the United States environmental protection agency shall be deemed to satisfy, in whole or in part, the requirement to submit a report under this part." NMOGA asserts there are several problems with this proposed section:

- The section requires approval by the secretary which is an unnecessary bureaucratic requirement.
- The section does not specify what the secretary will consider when deciding whether to approve EPA reports or not.
- The section does not specify the timing for approval by the secretary, which leaves the regulated community in limbo about whether one report or two reports will be required.
- The section requires reports submitted to EPA, to meet the federal requirements in 40 CFR 98, to also conform to the New Mexico reporting requirements. Because EPA is developing a reporting system for the entire country, NMOGA believes it is unlikely that the federal reporting program will make state specific adjustments for New Mexico.

- The proposed section includes the phrase "in whole or in part" adding to a regulated facilities uncertainty in knowing if they report submitted to EPA will also be considered to fulfill the requirements of the proposed 20.2.300 NMAC.

NMOGA suggests that these issues could be resolved by simply revising the proposed section to read "A report submitted to the United States Environmental Protection Agency that satisfies the requirements of 40 CFR 98 shall be deemed to satisfy the requirement to submit a report under this part." This proposed change would allow facilities subject to the federal requirements in 40 CFR 98 to submit a single report and have reasonable assurance that they were complying with both the federal and state reporting requirements.

Section 4 – Comments on Department's Proposed Changes to EPA Reporting Requirements

<u>20.2.300.102 NMAC – Modifications, Exceptions and Omissions to 40 CFR Part 98 Subpart A – General Provisions</u>

In subsection 20.2.300.102.I.(2) NMAC, the Department's proposed language includes "Until such time as the department has made a determination regarding the carbon neutrality if any biomass fuels, …". While this particular section may not have any direct impact on the New Mexico petroleum refining industry, I am still concerned about the proposed language. The proposed rule does not specify what criteria will be used to evaluate carbon neutrality or the time frame that will be considered in the decision. Evaluating carbon neutrality is very complicated and could consume significant department resources thereby diverting resources away from other environmental programs. The proposed section also does not specify a timetable for completing the evaluation, it does not specify what kind of involvement the regulated community will have

in the process, and it does not specify what recourse industry might have to appeal the decision reached after the department's evaluation.

In subsection 20.2.300.102.K.(2)(a) NMAC, the Department's proposed rule addresses requirements for facilities to discontinue reporting if the reported emissions are below 10,000 metric tons CO_2e per year for a minimum of three years. The proposed subsection states in part "If reported emissions are less than 10,000 metric tons CO_2 per year for three consecutive years then the owner or operator may discontinue submissions of annual emissions reports required by this part, provided that the owner or operator submits a notification to the department that announces the cessation of reporting and explains the reasons for the reduction in emissions. The notification shall be submitted no later than March 31 of the year immediately following the third consecutive year of emissions less than 10,000 tons CO_2e per year." The requirement to explain "the reasons for the reduction in emissions" is unnecessary and creates an additional burden on the reporting facility. A requirement to explain the reasons implies that the Department will be evaluating the reasons and making a decision on whether it agrees or not. All the Department needs to know is that the emissions were below 10,000 tons CO_2e per year for three consecutive years. It is also unclear why the department included a notification deadline of "no later than March 31 of the year immediately following the third consecutive year of emissions less than 10,000 tons CO_2e per year." This implies that if the deadline is missed, then a company will remain subject to the reporting requirements in this proposed rule. The language should allow for the notification to be submitted anytime after the third consecutive year of emissions less than 10,000 tons CO_2e per year.

In subsection 20.2.300.102.Q NMAC, the Department's August 31, 2010 version of the proposed rule states "Section 98.3(f) after the heading [Verification] is modified as follows:

Owner or operators subject to the verification requirements of 20.2.301 NMAC shall obtain verification services and submit a verification statement meeting the requirements of 20.2.301 NMAC, if applicable." In a separate proposed rule, 20.2.301 NMAC, the Department has proposed verification requirements. It seems duplicative and unnecessary to have requirement in this proposed reporting rule, 20.2.300 NMAC, related to the verification requirements. This places a regulated facility in double jeopardy. If they do not meet the verification requirements in 20.2.301 NMAC then they may have also violated this particular requirement in 20.2.300.201.Q NMAC and could be penalized for violating two regulatory requirements for a single error. NMOGA thinks that this is unfair and that the verification requirements should be limited to the proposed 20.2.301 NMAC rules.

In subsection 20.2.300.102.R.(2) NMAC, the Department's August 31, 2010 version of the proposed rule states "The records required under this section shall be made available to the department within twenty days after the request;". NMOGA thinks that twenty calendar days may not be sufficient time to produce up to seven years of records that must be kept under the proposed subsection 20.2.300.201.R.(1). Many facilities have limited on-site record storage and long-term records are kept off-site or in electronic archives that may not be immediately accessible by Environmental Department staff. Therefore, NMOGA suggest the following revised wording "The records required under this section shall be made available to the department within sixty days after receipt of a written request. The Department may grant extensions of this deadline."

Similarly, in subsection 20.2.300.102.R.(4) NMAC, the Department's August 31, 2010 version of the proposed rule states "Subparagraph (5)(iv) is modified to: Upon request by the department, the owner or operator shall make all information that is collected in conformance

with the GHG Monitoring Plan available for review during an audit within twenty days after the request. Electronic storage of the information in the plan is permissible, provided that the information can be made available in hard copy upon request during an audit." As explained previously, many facilities have limited on-site record storage and long-term records are kept off-site or in electronic archives that may not be immediately accessible by Environmental Department staff. Therefore, NMOGA suggest the following revised wording "Subparagraph (5)(iv) is modified to: Upon request by the department, the owner or operator shall make all information that is collected in conformance with the GHG Monitoring Plan available for review during an audit within sixty days after receipt of a written request. Electronic storage of the information in the plan is permissible, provided that the information can be made available in hard copy upon request during an audit." Even with this proposed change, NMOGA questions the need for this part of the rule. The Department has separately proposed the 20.2.301 NMAC verification rules. NMOGA has previously understood that the intent of the verification rules were to place the burden of verifying reported emissions on third-party verifications paid for by the reporting facility. If this understanding is correct, it is unclear why the Department would be expending time and resources auditing the reporting records.

In subsection 20.2.300.102.T.(3) NMAC, the Department's August 31, 2010 version of the proposed rule states "Paragraph (i)(6) is modified to: "For units and processes that operate continuously with infrequent outages, it may not be possible to meet the April 1, 2011 deadline for the initial calibration of a flow meter or other measurement device without removing the device from service and shipping it to a remote location, thereby disrupting normal process operation. In such cases, the owner or operator may postpone the initial calibration until the next scheduled maintenance outage, and may similarly postpone the subsequent recalibrations. Such

postponements shall be documented in the monitoring plan that is required under section 98.3(g)(5) and submitted before December 31, 2011 to the department for approval." This revision to 40 CFR 98 is unnecessary and creates an additional burden for the reporting facilities. The refineries subject to EPA's GHG reporting rule in 40 CFR 98 have already prepared and submitted the monitoring plans and the requests to extend initial calibrations until the next scheduled shut down for certain monitoring devices. Resubmitting the monitoring plans and the initial calibration extension request to the Department serves no useful purpose. It also creates uncertainty about whether the Department will approve extensions already approved by EPA. If the Department intends to automatically approve any extension already approved by EPA, then this subsection of the proposed rule is duplicative and unnecessary. If the Department expends the resources to independently evaluate the extension requests and then disagrees with what EPA has approved, the proposed rule does not specifically outline the appeal process. NMOGA requests that this subsection be revised to "Paragraph (i)(6) is deleted for the purposes of the 20.2.300 NMAC rules."

In subsection 20.2.300.102.U NMAC, the Department's August 31, 2010 version of the proposed rule contains several items that are unclear or do not allow appropriate flexibility for the reporting facilities. Each of these items will be addressed separately as well as in the context of the proposed subsection.

- Subsection 20.2.300.102.U.(1) NMAC states "98.3(j): Where 20.2.300 NMAC requires sampling of a parameter on a more frequent basis than the corresponding rule in 40 CFR Part 98, the following shall apply unless in conflict with any other provision in 40 CFR Part 98;" The wording of this section indicates that the Department has not yet identified all of the potential conflicts between its proposed 20.2.300 reporting rules and the

existing 40 CFR 98 requirements. This creates additional uncertainty for the reporting facilities subject to both regulations. A reporting facility may believe it is complying with both regulations only to be second-guessed by the Department.

- Subsection 20.2.300.102.U.(2) NMAC states "98.3(j)(1): The samples must be spaced apart as evenly as possible over time, taking into account the operating schedule of the relevant unit or facility." This requirement is vague and subjective. "as evenly as possible over time" does not provide the reporting facilities to determine the best sampling frequency for their operations and the variations in those operations.
- Subsection 20.2.300.102.U.(3) NMAC requires a facility to use a mass-weighted average for samples collected. This requirement introduces an additional calculation burden on the reporting facilities. While a weighted average is theoretically more accurate for samples where there is significant variation, it is not necessary when the variation between samples is low. Given the inherent accuracy of the measurements needed for reporting annual GHG emissions, this proposed requirement increases the precision of the reported data but not necessarily the accuracy. It is meaningless to require such detailed information for annual emissions reporting of large quantities of GHG emissions. The net effect of any calculation difference is lost when the global scale of GHG emissions is considered. If nothing else, the rule should allow for volume-weighted averages in addition to mass-weighted averages where appropriate.
- Subsection 20.2.300.102.U.(5) NMAC states "98.3(k): Where 20.2.300 NMAC specifies a choice between use of a fuel-based or mass balance-based calculation or use of a continuous emissions monitoring system (CEMS) to calculate GHG emissions, the owner or operator shall make this choice and continue to use the method chosen for all future

emissions data reports, unless the use of the alternative calculation method is approved in advance by the department." NMOGA believes that this requirement is overly restrictive. Reporting facilities should have the flexibility to use the data collection and calculation methods that best suit their operation without having to repeatedly obtain approval by the Department. The proposed rule does not specify what factors the Department would consider, nor does it specify the deadline for approving or denying a requested change. In addition, if the proposed verification rules in 20.2.301 NMAC are also adopted, then the Department would have the verification report to document that appropriate data collection and calculation methods were used for the reporting.

- Subsection 20.2.300.102.U.(6) NMAC states "98.3(I): The owner or operator may elect to designate as de minimis one or more sources of pollutants that collectively emit no more than 3 percent of the facility's total CO_2e emissions, but not to exceed 20,000 metric tons CO_2e. Where 20.2.300 NMAC otherwise requires the use of a more stringent method for monitoring and reporting emissions than the method required by 40 CFR Part 98, the owner or operator may elect to use any other method allowed under 40 CFR Part 98 for the sources or pollutants designated as de minimis." While NMOGA appreciates the Departments intent to allow for a de minimis exemption, it is an empty gesture in many respects. For example, the proposed rule would require a petroleum refinery to estimate emissions from the large combustion sources, such as process heaters and boilers, and it would also require estimates of the GHG emissions from small water heaters used within administration buildings or employee break areas. The Department may suggest that this proposed de minimis exemption could be used for the small water heaters. However, this ignores the reality that the facility would still have to keep the

records and perform the calculations to demonstrate that the emissions were less than the three percent (3%) de minimis level. It also ignores that refineries typically used a combined fuel supply, so the ability to exempt smaller sources would not necessarily reduce the sampling, calculation, or recordkeeping burden for the facility.

As a suggestion, NMOGA proposes that the NMED allow common sense criteria such as rated heat duty and other similar criteria to validate the exclusion of small de minimis GHG sources. Facilities should not be required to perform calculations or retain records of such validity.

Refinery Combustion Sources Covered by 40 CFR 98 Subpart C

The Department proposes many changes to the federal GHG reporting requirements found in 40 CFR 98. The New Mexico petroleum refining industry is subject to the federal reporting requirements. The refineries have invested time and resources understanding the complicated federal rules and developing the site-specific, detailed GHG Monitoring Plans required by the federal rule. The Department's proposed additions and deletions to the requirements in 40 CFR 98 will require additional time and effort to understand and implement so that the differing state and federal requirements will both be met. If the proposed 20.2.300 NMAC and 20.2.301 NMAC rules are adopted, then the refineries in New Mexico will be in the unique position of having to comply with two different reporting requirements as compared to refineries in other states.

In subsection 20.2.300.103.B.(10) NMAC, the Department's August 31, 2010 version of the proposed rule states "Subparagraph 98.33(b)(3)(iii) is modified to: [The Tier 3 Calculation Methodology] Shall be used for a fuel not listed in Table C-1 of this subpart provided that the

use of Tier 4 is not required." This revision removes an important condition from 40 CFR 98.33(b)(3)(iii). Deleting this portion of the rule removes an important option for refineries to balance the cost of sampling and analyzing some minor streams that are occasionally combusted against the desired goal of accurate GHG emission estimates. The EPA's version states "Shall be used for a fuel not listed in Table C-1 of this subpart if the fuel is combusted in a unit with a maximum rated heat input capacity greater than 250 mmBtu/hr provided that both of the following conditions apply: (A) The use of Tier 4 is not required. (B) The fuel provides 10% or more of the annual heat input to the unit, or if §98.36(c)(3) applies, to a group of units served by a common supply pipe." EPA's intent was to remove the reporting obligation for fuels that provide only a limited amount of the annual heat input. Some refineries subject to the proposed rules may burn butane or propane as part of the fuel gas when the butane or propane does not meet specific sales specifications. This typically happens on a limited basis. The Department's proposed rule would require sampling and testing of these streams, if and when they are burned, because they propose to remove the 10% of annual heat input exclusion. This is an example where the cost of compliance outweighs any potential increase in precision of the GHG estimates expected by the Department.

In subsection 20.2.300.103.B.(11) NMAC, the Department's August 31, 2010 version of the proposed rule states "A new subparagraph 98.33(c)(6) is added to: The owner or operator may elect to calculate CH_4 or N_2O emissions using source-specific emission factors derived from source tests conducted at least annually under the supervision of the department. Upon approval of a source test plan, the source test procedures in that plan shall be repeated in each future year to update the source specific emission factors annually." The Department has attempted to add some needed flexibility to the proposed reporting rule to allow source-specific emission factors

derived from source tests. However, it is not clear of the proposed source plan mentioned by the Department is the same as a stack test protocol that is already required prior to a source test or if they intend this to be some other type of pre-test document. If it is not a stack test protocol, then the Department has not specified what information might be included in such a plan, the deadline for submission, or the expected time-table for review by the Department. The proposed language also locks in the testing requirements and appears to preclude changes that might be necessary to comply with improved test methods or data collection procedures. Annual testing may not be appropriate in all cases and would tend to discourage testing for some sources. The Department should consider allowing a facility to establish operating parameters that could be used as an indicator of stable operating conditions that would allow testing to be conducted less frequently than annually. The Department should also consider additional language to allow for source test plan changes or a return to emission factors if source testing becomes too expensive.

In subsection 20.2.300.103.C.(1) NMAC, the Department's August 31, 2010 version of the proposed rule states "A new sentence is added at the end of the introductory paragraph of 98.34(b)(3)(ii)(E): The equipment necessary to perform daily sampling and analysis of carbon content and molecular weight for refinery fuel gas shall be installed no later than January 1, 2012." This one sentence creates an expensive burden for New Mexico refineries that refineries in other states would not be required to meet. For example, refineries with an on-site internal laboratory, this sentence creates an additional sampling and analytical burden. For example, at the Artesia Refinery, three refinery fuel gas locations would require daily sampling and analysis. The samples would need to be collected early in the day to allow time for the lab to attempt the analysis. If an acceptable sample was not obtained, the lab would still have time during the day to request a replacement sample for the same calendar day. This creates a specific burden for

weekends and holidays when refinery chemists are not normally working. A trained chemist is required to properly operate the gas-chromatograph and interpret the results. The lab tester positions that are typically working shifts covering twenty-four hours per day and 365 days per year do not currently have the required skills. Refineries that do not have an on-site lab, or reasonable access to a third-party lab nearby, would essentially be required to install, calibrate, and maintain on-line gas chromatographs for each refinery fuel gas sampling location. Gas chromatographs suitable for installing in a refinery are expensive because the instruments must be intrinsically safe or must be enclosed in a shelter to isolate the instrument from potential hazards within the refinery. In addition to the initial installation costs, which are likely to be between $100,000 and $250,000 per sampling location, complicated instruments require routine inspection and maintenance by skilled technicians familiar with this type of equipment. Spare parts must be purchased and maintained in warehouse inventory. Therefore, annual operating expenses increase for each instrument added. The Department has not presented a cost benefit analysis for the increased sampling and analysis to justify the increased expenses imposed on the New Mexico petroleum refining industry.

In subsection 20.2.300.103.D.(4)(a) NMAC, the Department's August 31, 2010 version of the proposed rule states "The introductory sentence of 98.36(e)(3) is modified to: "Within 20 days of receipt of a written request from the secretary, you shall submit explanations of the following:" The Department's August 31, 2010 version of the proposed rule shortens the response deadline from the 30 days allowed by EPA to 20 days. However, on Page C-41 in Exhibit 1B of Mr. Musick's August 31, 2010 testimony, he indicates that the only proposed change to EPA's rule is the replacement of "Administrator" with "Secretary". Because of this

contradiction, it is unclear what the Department is proposing. NMOGA believes that the deadline should either remain at 30 days, or be extended to 60 days or more.

In subsection 20.2.300.103.D.(4)(b) NMAC, the Department's August 31, 2010 version of the proposed rule states "The introductory sentence of 98.36(e)(4) is modified to: Within 20 days of receipt of a written request from the secretary, you shall submit the verification data and information described in paragraphs (e)(2)(iii), (e)(2)(v), and (e)(2)(vii) of this section." The Department's August 31, 2010 version of the proposed rule shortens the response deadline from the 30 days allowed by EPA to 20 days. However, on Page C-42 in Exhibit 1B of Mr. Musick's August 31, 2010 testimony, he indicates that the only proposed change to EPA's rule is the replacement of "Administrator" with "Secretary". Because of this contradiction, it is unclear what the Department is proposing. NMOGA believes that the deadline should either remain at 30 days, or be extended to 60 days or more.

Refinery Hydrogen Production Sources Covered by 40 CFR 98 Subpart P

The Department proposes changes to 40 CFR 98 Subpart P - Hydrogen Production that will affect one of the refineries in New Mexico. The Department proposes to modify the term "CC_n" for equation P-1 in subsection 98.163(b)(1) to mean "Weighted average carbon content of the gaseous fuel and feedstock, from the results of one or more analyses for month n for natural gas or from the daily analysis for gaseous feedstocks other than natural gas (kg carbon per kg of fuel and feedstock.". The Department also proposes to change subparagraph 98.164(b)(2) to "Determine the carbon content and the molecular weight monthly for natural gas. For other gaseous fuels and feedstocks (e.g. biogas, refinery gas, or process gas), daily sampling and analysis is required to determine the carbon content and molecular weight of the fuel and

feedstock." These changes increase the sampling and analysis frequency for natural gas from annually to monthly. The changes also require a more complicated calculation by requiring a weighted average of the carbon content and molecular weight. The Department has not provided an explanation for requiring this change and whether it will have a material effect on the GHG emission estimates. The accuracy of the flow meters measuring the natural gas fuel and feedstock may vary enough that requiring a weighted average of carbon content and molecular weight for purchased natural gas fuel and feedstock may not necessarily improve the accuracy of the GHG estimate.

Currently, only one refinery in New Mexico would be affected by these proposed changes. Therefore, that site would have an increased cost for compliance as compared with refineries not only in other states but also as compared to the other refineries within New Mexico. The Department has not presented a cost benefit analysis for the increased sampling and analysis to justify the increased expense.

Refinery Flares Covered by 40 CFR 98 Subpart Y

On page 12, lines 20 through 33, of the red-lined revised version of proposed rule 20.2.300 NMAC (dated 08/31/2010), the Department proposes revised language for 40 CFR 98.253(b)(1)(iii) and 98.253(b)(1)(iii)(A), and proposes to delete 98.253(b)(1)(iii)(B). These sections affect refinery flares. The Department's proposed changes require monitoring of either composition or heat content of materials that are routinely vented to the flare or vented to the flare during maintenance activities. A refinery's ability to use engineering calculations and process knowledge would be limited to startup, shutdown, or malfunctions.

This approach would require more frequent sampling and analysis of the gases going to the flare during routine operations. For some of the refineries in New Mexico, normal operation does not include routine continuous venting to the flare. The flares have a relatively small amount of natural gas or refinery fuel gas that flows through the flare header towards the flare for safety reasons. The flare header flow maintains flow in the proper direction and maintains a slight positive pressure to prevent air from leaking into the flare header and creating a potential safety hazard.

The Department's proposed changes would require daily or weekly monitoring of each flare header stream regardless of flow rate. This increases the cost, but will not provide a noticeable improvement in the accuracy of the GHG estimates, because the composition of the gas in the flare header may be essentially the same as the natural gas or refinery fuel gas composition. The Department has not presented a cost benefit analysis for the increased sampling and analysis to justify the increased expenses imposed on the New Mexico petroleum refining industry.

Section 5 – Comments on Department's Proposed Verification Requirements

20.2.301.7 NMAC – Definitions

In subsection 20.2.301.7.B NMAC, the Department's August 31, 2010 version of the proposed rule states ""Conflict of interest" means a situation in which, because of financial or other activities or relationships with other persons or organizations, a person or body is unable or potentially unable to render an impartial verification opinion of a potential client's greenhouse gas emissions, or the person or body's objectivity in performing verification services is or might be otherwise compromised." This definition is too broad and subjective.

In subsection 20.2.301.7.L NMAC, the Department's August 31, 2010 version of the proposed rule states ""Verification body" means a firm, accredited by the accreditation body, that is able to render a verification statement and provide verification services for owners and operators subject to reporting under 20.2.300 NMAC." This definition includes the phrase "accredited by the accreditation body" but the proposed rule does not define "accreditation body".

20.2.301.100 NMAC – Applicability and Scope of Verification Requirements

In subsection 20.2.301.100.D NMAC, the Department's August 31, 2010 version of the proposed rule states "Carbon dioxide emissions from the combustion of biomass fuels shall be included in the determination regarding verification applicability, with the following exceptions.

(1) Until such time as the department has made a determination regarding the carbon neutrality of any biomass fuels, a maximum of 15,000 metric tons of carbon dioxide emissions from the combustion of pure solid biomass fuel may be excluded from calculation of GHG emissions for comparison to the 25,000 metric ton CO_2e per year verification threshold in Subsection A of this section.

(2) After such time as the department has made a determination regarding the carbon neutrality of any biomass fuels, the carbon dioxide emissions from the combustion of those fuels determined to be carbon neutral may be excluded from calculation of GHG emissions for determining whether the 25,000 metric tons CO_2e per year verification threshold in Subsection A of this section has been met.

While this particular section may not have any direct impact on the New Mexico petroleum refining industry, I am still concerned about the proposed language. The proposed rule does not specify what criteria will be used to evaluate carbon neutrality or the time frame

that will be considered in the decision. Evaluating carbon neutrality is very complicated and could consume significant department resources thereby diverting resources away from other environmental programs. The proposed section also does not specify a timetable for completing the evaluation, it does not specify what kind of involvement the regulated community will have in the process, and it does not specify what recourse industry might have to appeal the decision reached after the department's evaluation.

In subsection 20.2.301.100.G NMAC, the Department's August 31, 2010 version of the proposed rule states "Owners or operators of any facility not required to obtain annual verification as specified in this section may voluntarily obtain verification of their emissions report, provided that all requirements related to verification and other reporting requirements in 20.2.300 NMAC are met." This section is unnecessary. If a company is not subject to the requirements of the proposed 20.2.301 NMAC, then they should be free to have their emissions verified in the manner of their own choosing. The subsection imposes requirements on facilities that are not subject to this rule according to the applicability criteria.

20.2.301.101 NMAC –Requirements for Annual Verification of Emission Data Reports

In subsection 20.2.301.101.A.(2) NMAC, the Department's August 31, 2010 version of the proposed rule states "conforms to the requirements of 20.2.300 NMAC." NMOGA suggests that the word "generally" be added at the beginning of this subsection. The revised version would then read "generally conforms to the requirements of 20.2.300 NMAC." This revision would make the condition more consistent with the phrase "reasonable level of assurance" in proposed 20.2.301.101.A NMAC.

In subsection 20.2.301.101.D.(1) NMAC, the Department's August 31, 2010 version of the proposed rule states "Facility owners or operators required to obtain annual verification shall

obtain full verification services if any of the following apply: (1) there has been change in the verification body from the previous year; or". This subsection should be completely deleted. Because verification bodies are certified, all certified verification bodies should be considered equivalent. Therefore, changing verification bodies should not impose additional requirements. This requirement, like others, gives the appearance of distrust toward the regulated community and the verification bodies that will be certified by the State of New Mexico.

In subsection 20.2.301.101.E NMAC, the Department's August 31, 2010 version of the proposed rule states "Owners or operators of any facility required to obtain, or voluntarily obtaining, verification of their emissions report shall complete the verification process and submit the verification report to the department no later than:

(1) August 1, 2012, for reports of emissions in calendar year 2011; and 43

(2) April 1 of the year following the calendar year in which the emissions occurred, for reports of emissions in calendar years after 2012."

This proposed subsection sets the deadline for verification reports to be the same deadline as for the emission reports for 2012 and every thereafter. This is an unrealistic deadline as the verifier will not have access to all of the reporting data until April 1 of each year. In addition, for the first year, the August 1 deadline is only four months after the April 1 reporting deadline. Verifiers should have at least six months, and preferably nine months, to complete the verification given the complexity of some sources. Under the Department's proposed rule, the verification activities for all sources must occur within a very limited time thereby placing a significant constraint on verifier's resources.

20.2.301.102 NMAC –Accreditation Requirements for Verification Bodies

In subsection 20.2.301.102.B NMAC, the Department's August 31, 2010 version of the proposed rule states "A verification body shall be qualified to conduct verification services for the emissions reports submitted to the department as required by 20.2.300 NMAC only if:

(1) the department has determined that the verification body has demonstrated knowledge of the reporting requirements in 20.2.300 NMAC; and

(2) it is accredited to ISO 14065 through a program developed under ISO 17011 by an accreditation body that is a member of the International Accreditation Forum, Inc."

20.2.301.102.B(1) is unclear as to the process, format, and timing of how a verification body demonstrates knowledge of the reporting requirements in 20.2.300 NMAC. This places a significant burden on the Department to develop a demonstration process, assure that it is completed, and track the verification bodies that have completed the process. The subsection also fails to indicate if this demonstration is a one time event, must be renewed on a periodic basis, or describe what happens if the rules in 20.2.300 NMAC are revised.

20.2.301.103 NMAC –Requirements for Verification Services

In subsection 20.2.301.103.A NMAC, the Department's August 31, 2010 version of the proposed rule states "As part of the verification services, the verification team shall review documents submitted, assess risks of a material misstatement, develop a verification plan (that includes a sampling plan), evaluate the emissions data report against the verification requirements, and assess the materiality of errors, omissions and misstatements identified." As noted previously, the proposed April 1 verification deadline is impractical. Proposed subsection 20.2.301.103.A requires the verifier to review documents submitted. The verifier might have to

review the submitted documents in real time for both the reporting and the verification deadlines to be met.

20.2.301.104 NMAC –Composition of Verification Team

In subsection 20.2.301.104 NMAC, the Department's August 31, 2010 version of the proposed rule states "A verification team must include the following:

A. a lead verifier;

B. an independent peer reviewer; and

C. any subcontractor elected to provide verification services under 20.2.301.105 NMAC."

This section dictates a specific verification team structure that may not be appropriate for all reporting facilities. The Department has removed from the verifier the responsibility of establishing an appropriate verification team and mandated a structure that will increase the cost of verification services regardless of the reporting facility's size or complexity. In addition, although the term "independent peer reviewer" is defined in 20.2.301.7.E NMAC, the definition refers to a "lead verifier" which is not defined in the proposed rule.

20.2.301.106 NMAC –Conflict of Interest Submittal Requirements for Accredited Verification Bodies

In subsection 20.2.301.106 NMAC, the Department's August 31, 2010 version of the proposed rule states "Before the start of any work related to providing verification services to an owner or operator, a verification body must first be authorized in writing by the department to provide verification services. To obtain authorization the verification body shall submit to the department a self-evaluation of the potential for any conflict of interest that the verification body, entities related to the verification body, and members of the verification team including

subcontractors, may have with the owner or operator or their related entities for which it will perform verification services. For the purposes of this section, the term member refers to staff on the verification team, in the verification body and any subcontractors. The submittal shall include all of the following." This subsection requires the Department to authorize all verification bodies prior to the start of any verification work, however, the proposed rule does not specify the timing of the authorization process. This proposed requirement places another constraint on the number of verification bodies available to the reporting facilities that must hire verifiers. It also requires information related to potential subcontractors. This prevents verifiers form hiring subcontractors as needed to meet the proposed verification deadlines.

In subsection 20.2.301.106.D NMAC, the Department's August 31, 2010 version of the proposed rule states "Identification of whether any member of the verification body, entities related to the verification body, or the verification team including subcontractors, has engaged in any non-verification services of any nature with the owner or operator or related entities, in any jurisdiction, during the previous three years. The verification body must also disclose any services listed under Subsections A through C of 20.2.301.107 NMAC it has provided to the owner or operator, regardless of when these services occurred." The phrase at the end of this proposed subsection "regardless of when these services occurred" requires recordkeeping and disclosure forever. This is an unreasonable requirement.

In subsection 20.2.301.106.F NMAC, the Department's August 31, 2010 version of the proposed rule states "The nature of past, present or future relationships the verification body, entities related to the verification body, and members of the verification team including subcontractors have with the owner or operator or related entity including". This subsection requires verification bodies to forecast the future relationships with the owner or operator of a

facility. The verification body will not likely have the information needed, nor the ability, to forecast all future relationships. If the Department does not intend for forecast of all future relationships, regardless of when they might occur, then the proposed language should be revised.

In subsection 20.2.301.106.F.(1) NMAC, the Department's August 31, 2010 version of the proposed rule states "instances when any member has performed or intends to perform work for the owner or operator;". As with the previous requirement in proposed 20.2.301.106.F, this proposed language requires the verification body to provided instances when any member "intends to perform work for the owner or operator" It is unclear how the Department could reasonably expect the verification body to know the intentions of all members for an indefinite future time frame.

20.2.301.107 NMAC –Conflict of Interest Requirements for Verification Bodies

In subsection 20.2.301.107.B NMAC, the Department's August 31, 2010 version of the proposed rule states "The potential for a conflict of interest shall also be deemed to be high where any staff member of the verification body, entity related to the verification body, or the verification team has provided verification services for the owner or operator for six consecutive years or within three years of the termination of a previous GHG verification contract with the owner or operator. If a verification body or verification team member has been providing verification services for an owner or operator in a greenhouse gas reporting or reductions program other than one in the jurisdiction of the environmental improvement board within the past three years, those years of services will count towards the six consecutive year limit in this subsection." This proposed rule is overly restrictive on the potential conflict of interest limits. NMOGA anticipates that the number of verifiers available will be small because of the onerous

requirements proposed by the Department. Further restricting the ability of a qualified, third-party, verifier to continue providing services to a reporting facility is unnecessary.

In subsection 20.2.301.107.F.(2) NMAC, the Department's August 31, 2010 version of the proposed rule states "the department shall evaluate the conflict of interest mitigation plan and determine whether verification services may proceed, as provided in subsection G of 20.2.301.107 NMAC." In Subsection 2.301.107.G NMAC, the Department's August 31, 2010 version of the proposed rule states "Conflict of Interest Determinations. The department shall review the self-evaluation submitted by the verification body and determine whether the verification body is authorized to perform verification services for the owner or operator." Neither of these proposed subsections specifies the criteria the Department will consider nor the deadline that the Department must meet for completing the review. Additionally, the proposed rules do not specify any potential conflict of interest requirements that apply to the Department.

In subsection 20.2.301.107.H.(4) NMAC, the Department's August 31, 2010 version of the proposed rule states "The department may invalidate a verification finding if a medium or high threat of a conflict of interest has arisen for the verification body or any member of the verification team and, in the case of a medium threat, the threat has not been adequately mitigated. In such a case, the owner or operator shall be provided 180 days to have their emissions report verified by a different verification body." This proposed section does not include the process for the Department to follow nor the criteria they will use to invalidate a verification finding. It also does not include any specific appeal process that a verifier or a reporting facility can use to challenge the Department's decision. Finally, providing only 180 days for a replacement verification body is unrealistic given all of the up-front requirements before a verifier can begin work for a reporting facility.

20.2.301.108 NMAC –Notice of Verification Services

In subsection 20.2.301.108 NMAC, the Department's August 31, 2010 version of the proposed rule states "Prior to commencing verification services for a facility owner or operator, the verification body shall submit a notice of verification services to the department. Verification activities shall not proceed for 21 days or until the verification body receives written approval to proceed from the department, whichever is earlier. If the department does not respond to the verification body within 21 days, the verification body may begin to conduct verification activities." This requirement is unnecessary. The Department is proposing extensive review and approval requirements for verifiers and providing a notification to the Department serves no additional useful purpose. It does create another time constraint on when verification services can be performed.

20.2.301.109 NMAC –Preliminary Activities

This section provides very broad and prescriptive requirements for verifiers to follow. For example, in subsection 20.2.301.109.B NMAC, the Department's August 31, 2010 version of the proposed rule states "In developing the verification plan, the verifier shall:

(1) gain an understanding of the organization and the processes that emit greenhouse gases;

(2) conduct a risk assessment to evaluate inherent, control and detection risk;

(3) conduct preliminary analytical testing to identify anomalies in the data;

(4) conduct a sensitivity analysis to assess the relative contribution of each source in the inventory to the reported annual emissions; and

(5) consider any other relevant developments at the facility, in the regulations, or legal environment.

It is unclear why gaining an understanding of the organization submitting a report is relevant to preparing a technically accurate GHG report. The prescriptive nature of items 2, 3, and 4 in the list removes some of the flexibility of a qualified verifier to design a verification process appropriate to the size and complexity of the reporting facility. Item 5 of the list requires consideration of legal developments although it is unclear why the Department believes this information is necessary for verifying a report. Overall, the Department's approach indicates that they do not trust verifiers to do an adequate job unless they follow the Department's requirements.

20.2.301.110 NMAC –Sampling Plan

As with proposed section 20.2.301.109 NMAC, this section provides prescriptive requirements for verifiers to follow in preparing a sampling plan regardless of the size or complexity of the reporting facility.

20.2.301.111 NMAC –Verification Plan

As with proposed sections 20.2.301.109 NMAC and 20.2.301.110 NMAC, this section provides prescriptive requirements for verifiers to follow in preparing a verification plan regardless of the size or complexity of the reporting facility. The verification plan must even report on the nature, timing, and extent of the sampling plan which seems duplicative.

20.2.301.112 NMAC –Site Visits

In subsection 20.2.301.112 NMAC, the Department's August 31, 2010 version of the proposed rule states in part "In years for which full verification services are required under Subsection C of 20.2.301.101 NMAC, at least one member of the verification team shall at a minimum make one onsite site visit to each facility for which an emissions data report is submitted. The verification team member(s) shall also conduct an onsite visit of the

headquarters or other location of central data management, if different from the facility location." While it may be appropriate to visit some facilities, it is not necessary to revisit each site every three years unless changes have been made to the facility. For a company with multiple locations, this requires one or more visits to each facility, which takes travel and onsite time for the verification team, time for one or more facility personnel, and increases travel and expenses for the verification team. All of these constraints decrease the time that may actually be spent verifying data and increases the cost. Why is NMED so concerned about verifiers visiting each site if they are accredited by the Bureau in the first place? This requirement adds unnecessary cost and removes flexibility for a verifier to make an independent professional judgment about the value and necessity of a site visit.

20.2.301.120 NMAC –Voiding of Positive Verification Statement

In subsection 20.2.301.120 NMAC, the Department's August 31, 2010 version of the proposed rule states "The department may make void the positive verification statement submitted by the verification body if:

A. the department finds a high level of conflict of interest existed between a verification body and an owner or operator; or

B. an emissions data report that received a positive verification statement fails an audit by the department.

NMOGA questions whether the Department has the staff resources necessary to conduct an audit of an emissions data report. It is also unclear what would trigger an audit review and the process that the Department would follow. Does the Department have staff accredited to audit a facility's report? Would the Department be required to follow its own verification procedures?

If so, how will the Department become accredited as a verifier without an apparent conflict of interest?

20.2.301.123 NMAC –Duration of Verification Services by One Verification Body

In subsection 20.2.301.123 NMAC, the Department's August 31, 2010 version of the proposed rule states "Facility owners or operators subject to annual verification shall not use the same verification body for a period of more than six consecutive years. If a facility owner or operator is required or elects to contract with another verification body, they may contract verification services from the previous verification body only after not using the previous verification body for at least three years. If a verification body or verification team member has been providing verification services for an owner or operator in a greenhouse gas reporting or reductions program other than the department's within the previous three years, those years of services will count towards the six consecutive year limit in this section." This requirement indicates that the Department believes that independent third-party verifiers can not be trusted to maintain their independence. Requiring a change in verifiers will increase the compliance cost for the reporting facilities because at least every six years, the entire verification process must begin from scratch. This is inefficient and does not necessarily improve the reliability of the verification report. The opposite may be true because as a verifier becomes more familiar with a facility, they may become more aware of potential reporting pitfalls. They can also adjust the verification process to focus on different aspects in different full verification years by building on their knowledge of the facility's reporting process. This is an example of the Departments' presumption that reporting facilities and verifiers should be guilty until proven innocent. NMOGA is also concerned that there may not be a large enough pool of verifiers to avoid all of the conflict of interest requirements in the proposed rule.

Section 6 – Comments on Direct Testimony of Brad Musick

Section I. - Overview

As stated in Mr. Musick's August 31, 2010 Direct Testimony (Page 1, lines 19 through 20), "These new rules are designed to provide the data needed for New Mexico's participation in a regional greenhouse gas (GHG) cap-and-trade program." Therefore, the proposed reporting and verification rules, if adopted, should be conditional on New Mexico participating in an active regional GHG cap-and-trade program. For example, the Department's proposed 20.2.350 NMAC rules have a trigger that requires a market of 100 million metric tons of CO_2e GHG emissions before the rules are effective. The Department's design objective for the proposed reporting and verification rules is more rigorous GHG estimates and verification for a cap-and-trade program. If a cap-and-trade program is not in place, then the proposed reporting and verification rules are unnecessary. The proposed rules should also have a sunset clause that will void these proposed rules if EPA develops reporting requirements for a national cap-and-trade program.

Section II.I - Quantification Methods

As stated in Mr. Musick's August 31, 2010 Direct Testimony (Page 10, lines 3 through 5), "Specifically, the emission quantification methods for some source categories must be modified to yield data of sufficient accuracy to support a cap-and-trade program." The Department has not presented a cost benefit analysis to justify the proposed changes to EPA's reporting requirements. The Department has not provided an analysis of the existing EPA reporting data requirements accuracy nor provided an analysis of how the Department's

proposed rules will improve the accuracy of the reported data. NMOGA asserts that the changes may improve the precision of the reported values but may not improve the accuracy.

Section II.J – De Minimus (sic) Emissions

As stated in Mr. Musick's August 31, 2010 Direct Testimony (Page 11, lines 6 through 8), "The Department's proposed rule reduces the reporting burden for de minimus (sic) emissions which are defined as three percent or less of a total facility emissions, up to a limit of 20,000 metric tons CO_2e." NMOGA disagrees that the three percent de minimis exemption reduces the reporting burden. The de minimis GHG emissions still require reporting and the proposed exemption does not necessarily reduce the data collection, calculation, or recordkeeping burden for the reporting facility. NMOGA expects that the Department will require significant documentation that the claimed de minimis sources at the facility are less than three percent of the facility's total GHG emissions.

Section II.O – Economic Reasonableness

As stated in Mr. Musick's August 31, 2010 Direct Testimony (Page 14, lines 18 through 23), "Estimation of costs to comply with the increased requirements for fuel use monitoring and fuel properties measurement might require facility-specific engineering and other data not available to the Department. However, the aggregate cost of the the (sic) Department's proposal should not be greater than the aggregate cost of the EPA rule, since the Department has proposed more rigorous requirements for only a fraction of the affected emissions." Mr. Musick admits that the Department may not have all of the information necessary to estimate the cost of the proposed rules yet he reaches the conclusion that the proposed rules will not increase the cost above that required to comply with the EPA reporting requirements. Any proposed change from the EPA reporting requirements will increase the cost because it will require different handling

than that already established for EPA reporting purposes. In addition, as mentioned earlier in my testimony, the proposed rule will significantly increase the cost associated with refinery fuel gas monitoring.

As stated in Mr. Musick's August 31, 2010 Direct Testimony (Page 14, lines 23 through 25), "EPA estimated that the first-year cost of compliance per metric ton of CO_2e emissions for Subpart C (General Stationary Fuel Combustion Sources) and Subpart Y (Petroleum Refineries) would be $0.12 and $0.03, respectively." NMOGA used the 2009 GHG reported emissions and the values cited by Mr. Musick to estimate the first-year compliance costs (see Exhibit 4 - Est Compliance Cost Using 2009 Refinery GHG Emissions.xls). Note that although Mr. Musick did not mention the cost for Subpart P (Hydrogen Production) in his testimony, his Exhibit 5 included this information so it was used for the cost estimate. The estimated cost for the petroleum refining industry is over $150,000 for the first year.

As stated in Mr. Musick's August 31, 2010 Direct Testimony (Page 15, lines 1 through 2), "Therefore, it is reasonable to conclude that the cost of the Department's proposal is lower than the cost of the complete EPA requirements." It is unclear how Mr. Musick reached his conclusion. As explained earlier, he recognizes that he may not have the data necessary to do a proper cost analysis. It is also illogical that making changes to the EPA rules, which will increase compliance costs because of different requirements under the two rules, will result in a lower cost.

Section III – Part 87 Repeal

NMOGA supports the proposed repeal of 20.2.87 NMAC – Greenhouse Gas Emissions Reporting. This will eliminate the duplicate reporting requirements for electric generating

facilities, cement plants, and petroleum refineries that are also subject to the EPA reporting requirements in 40 CFR 98.

Section IV. C – Schedule

The Department has failed to provide any justification for why verification reports should have the same deadline as the GHG emissions reports. As stated earlier, this deadline is unrealistic because the verifier may not have access to the submitted reports until the final reporting deadline.

Section 7 – Proposed Rules' Effects on the New Mexico's Petroleum Refining Industry

The proposed regulations will have a negative impact on the petroleum refining industry in New Mexico. As mentioned earlier, the petroleum refining industry directly provides several hundred well-paying jobs and contributes significantly to the state's taxes. Indirectly, the economic benefits to the state are much greater when the impact of purchased goods and services are also included.

The proposed regulations are a disincentive to the petroleum refining industry in New Mexico. If the existing petroleum refineries are placed at an economic disadvantage to petroleum refineries in neighboring states, the existing New Mexico petroleum refineries have less incentive to remain in operation.

Section 8 – Summary

NMOGA opposes the proposed regulations. The proposed regulations place the New Mexico refining industry at a competitive disadvantage to refineries in other states. This

proposed regulation will also have a chilling effect on future business decisions affecting the refineries in New Mexico. All things being equal, it will make more business sense to invest capital in other locations rather than in New Mexico. Over time, this will lead to further decline in economic competitiveness and loss of jobs and taxes for the state. Business owners will have less incentive to do business within New Mexico.

The proposed reporting and verification rules, if adopted, should be conditional on New Mexico participating in an active regional GHG cap-and-trade program. The proposed rules should also have a sunset clause that will end the effect of these rules if EPA develops reporting requirements for a national cap-and-trade program.

The proposed verification requirements essentially treat reporting facilities and verifiers as guilty until proven innocent. The Department has enforcement authority for violations of reporting rules and they should take appropriate action against companies that intentionally violate the proposed rules. However, the cumbersome verification rules and the very restrictive language on potential conflict of interest situations penalizes all reporting facilities that must spend additional time and resources to have their reports verified.

Price Exhibit 1 - Refinery Employee and Tax Summary

2009		New Mexico Refining Industry
Number of Employees in New Mexico		589
Employee Federal Income Taxes Withheld	Federal	$ 9,042,000
Employee State Income Taxes Withheld	State	$ 2,259,000
Federal Insurance Contributions Act (FICA) Social Security & Medicare Taxes - employer portion	Federal	$ 4,921,000
Federal Insurance Contributions Act (FICA) Social Security & Medicare Taxes - employee portion	Federal	$ 4,921,000
Property Taxes	State	$ 4,787,000
Sales & Use Taxes	State	$ 2,554,000
Company Federal Income Taxes	Federal	$ 4,300,000
Company State Income Taxes	State	$ 2,936,000
Federal Subtotals	**Federal**	**$ 23,184,000**
State Subtotals	**State**	**$ 12,536,000**
Combined totals		**$ 35,720,000**

Unemployment taxes were not included because of limited time to prepare this data for the subset of NM refinery employees.
State taxes are cash taxes paid for 2008 returns. Taxes for 2009 will not be filed/paid until the due date in October 2010.

Price Exhibit 2 - 2009 Refinery GHG Emissions

	2009 CO_2 EMISSIONS (metric tons/yr)	2009 CH_4 EMISSIONS (metric tons/yr)	2009 CO_2e of CH_4 EMISSIONS (metric tons/yr)	2009 Total CO_2e Emissions (metric tons/yr)		2009 Total CO_2e Emissions (metric tons/yr)
Gallup Refinery	260,692	60	1,260	261,952		
Bloomfield Refinery	112,425	40	840	113,265	Gallup Refinery [a]	375,217
Artesia Refinery	572,227	40	840	573,067		
Lovington Refinery	108,099	17	357	108,456	Navajo Refinery [b]	681,523
Totals	1,053,443	157	3,297	1,056,740	NM Refining Industry	1,056,740

Per 20.2.87.7.H NMAC, "Metric ton" means 2204.62 pounds

[a] Includes GHG emissions from the Bloomfield Refinery through November 2009 when Bloomfield refining operations were indefinitely suspended.

[b] Navajo Refinery includes both Artesia and Lovington locations

Price Exhibit 3 - 3% De Minimis of 2009 Refinery GHG Emissions

	2009 CO_2 EMISSIONS (metric tons/yr)	2009 CH_4 EMISSIONS (metric tons/yr)	2009 CO_2e of CH_4 EMISSIONS (metric tons/yr)	2009 Total CO_2e Emissions (metric tons/yr)	3% De minimis of 2009 Total CO_2e Emissions (metric tons/yr)
Gallup Refinery	260,692	60	1,260	261,952	7,859
Bloomfield Refinery	112,425	40	840	113,265	N/A [a]
Artesia Refinery	572,227	40	840	573,067	17,192
Lovington Refinery	108,099	17	357	108,456	3,254
Totals	1,053,443	157	3,297	1,056,740	28,304

Per 20.2.87.7.H NMAC, "Metric ton" means 2204.62 pounds

[a] Bloomfield refining operations were indefinitely suspended in November 2009.

Price Exhibit 4 - Est Compliance Cost Using 2009 Refinery GHG Emissions

	2009 CO_2 EMISSIONS (metric tons/yr)	2009 CH_4 EMISSIONS (metric tons/yr)	2009 CO_2e of CH_4 EMISSIONS (metric tons/yr)	2009 Total CO_2e Emissions (metric tons/yr)	EPA's Subpart C Estimated Compliance Cost using 2009 Total CO_2e Emissions [c] ($)	EPA's Subpart P Estimated Compliance Cost using 2009 Total CO_2e Emissions [d] ($)	EPA's Subpart Y Estimated Compliance Cost using 2009 Total CO_2e Emissions [e] ($)	EPA's Total Estimated Compliance Cost using 2009 Total CO_2e Emissions ($)
Gallup Refinery	260,692	60	1,260	261,952	$ 31,434	N/A [f]	$ 7,859	$ 39,293
Bloomfield Refinery	112,425	40	840	113,265	N/A [a]	N/A [a]	N/A [a]	N/A [a]
Artesia Refinery [b]	572,227	40	840	573,067	$ 68,768	$ 11,461	$ 17,192	$ 97,421
Lovington Refinery [b]	108,099	17	357	108,456	$ 13,015	N/A [f]	$ 3,254	$ 16,268
Totals	1,053,443	157	3,297	1,056,740	$ 113,217	$ 11,461	$ 28,304	$ 152,983

Per 20.2.87.7.H NMAC, "Metric ton" means 2204.62 pounds

[a] Bloomfield refining operations were indefinitely suspended in November 2009.

[b] Navajo Refinery includes both Artesia and Lovington locations

[c] Subpart C estimated cost from Musick's 08-31-2010 Testimony Pg 14 Lines 24-25

[d] Subpart P estimated cost from Musick's 08-31-2010 Testimony Exhibit 5

[e] Subpart Y estimated cost from Musick's 08-31-2010 Testimony Pg 14 Lines 24-25

[f] Subpart P (Hydrogen Production) only applies to the Artesia Refinery

STATE OF NEW MEXICO
ENVIRONMENTAL IMPROVEMENT BOARD

IN THE MATTER OF PROPOSED NEW REGULATIONS
20.2.300 NMAC REPORTING OF GREENHOUSE GAS EMISSIONS
20.2.301 NMAC GREENHOUSE GAS EMISSIONS – VERIFICATION REQUIREMENTS

AND PROPOSED REPEAL OF REGULATION
20.2.87 NMAC GREENHOUSE GAS EMISSIONS REPORTING

No. EIB 10-09(R)

New Mexico Environmental Department,
Petitioner.

AFFIDAVIT OF DOUGLAS B. PRICE, P.E.

STATE OF NEW MEXICO)
) ss.
COUNTY OF EDDY)

I, Douglas B. Price, being first duly sworn, depose and state that I am the individual whose prepared Direct Testimony accompanies this Affidavit, and that said Direct Testimony is true and correct to the best of my knowledge and belief.

Date: October 15, 2010

Douglas B. Price

SUBSCRIBED AND SWORN TO before me this 15th day of October 2010.

Notary Public

My Commission Expires: Aug 8, 2011.

OFFICIAL SEAL
Carrie Hernandez
NOTARY PUBLIC-STATE OF NEW MEXICO
My commission expires: Aug 8, 2011